

ABSTRACT

An air filter system is disclosed which utilizes a house plant growing in a standard plant growing device (pot) and a subsurface air withdrawal member positioned below the top surface of the growth media in which the plant is growing. The subsurface member has intake and outlet apertures where the outlet aperture is in fluid communication with a fan unit. The fan unit pulls air from the environment into and through the plant growing medium, into and through the subsurface member and into and out of the fan unit. As the air is pulled through the growth media the plant and associated micro-organisms remove airborne contaminants such as VOCs, pollens, dust and the like. The unit can also be operated in reverse where air is drawn into the fan unit and exhausted through the plant growth medium. Thus, any pot suitable for growing plants indoors can be converted into an air filter for upgrading the air quality of in open, closed or semi-closed environments.